

COMPARISION OF FIBROMETER TEST WITH FIBROSCAN AND ITS CORRELATION WITH LIVER BIOPSY IN DETECTING LIVER FIBROSIS IN PATIENTS WITH HEPATITIS B INFECTION.

INTRODUCTION:

Hepatitis B is a major health problem affecting more than 350 million people globally. Hepatitis B carriers are defined as persons positive for HBsAg for more than 6 months. The chance of developing sequelae is about 15% to 40% over lifetime, hence evaluation and early treatment is required. The prognosis and management of HBV related liver disease depends on the degree of liver fibrosis

AIM:

The aim of the study was to detect liver fibrosis in patients with chronic hepatitis B infection using non invasive markers – Fibroscan and Fibrometer test and to compare its efficacy with the gold standard liver biopsy.

MATERIALS AND METHODS:

This prospective study was conducted in our department, Department of Digestive Health and Disease, Kilpauk Medical College, Chennai. 30 patients were included in our study over a period of six months. Patients with Chronic hepatitis B infection alone were included in the study. Patients with associated HCV/HIV infection, compensated or decompensated cirrhotics were excluded from the study. Detailed history, physical examination was performed and baseline hematological investigations, Fibroscan, Fibrometer and Liver biopsy were also done.

RESULTS:

In our study, out of 30 patients 21 (70%) were males and 9 (30%) were females. 63% of the study population were HBeAg negative and 63.33% of the patients had high viral load of more than 1,00,000 IU/ml. Patients underwent Fibroscan study which showed 14 patients (46.67%) had liver stiffness measurement (LSM) of less than 6.5 kpa suggesting nil fibrosis, 33% had mild fibrosis with a LSM value of 6.5 to 8 and 20% had values above 8 suggesting moderate fibrosis. Similarly Fibrometer test showed 43.33% patients with significant fibrosis. Statistical analysis was done by Pearson co-efficient equation and it showed that Fibroscan value (LSM) of more than 8 kpa had 100% specificity in detecting significant fibrosis correlating with liver biopsy with a p value of 0.005 and ROC of 0.89 (95% confidence interval of 0.76 to 0.90). Fibrometer test also detected significant fibrosis (F2) in 43% of patients and on correlation with liver biopsy had a P value of 0.004 with ROC values of 0.905 and 95% confidence interval of 0.80 – 0.99.

CONCLUSION:

Fibroscan and Fibrometer is good non-invasive test only in detecting significant fibrosis, with higher values correlating with liver biopsy. Liver biopsy still is the gold standard and is useful in detecting early fibrosis. Both Fibroscan and Fibrometer has similar efficacy and can be used to exclude fibrosis and to detect significant fibrosis.